WHAT IS CLAIMED IS:

1. A method of processing a semiconductor substrate, comprising the steps of:

providing a semiconductor substrate having a surface with a contact formed therein;

depositing a conductor layer on the semiconductor substrate surface, wherein said conductor layer comprises a conductor;

forming an impurity layer in said conductor layer, said impurity layer having a melting point temperature and surface tension less than that of said conductor; and

heating the conductor layer to a reflow temperature, said reflow temperature being sufficient to cause the layers to reflow.

2. The method of claim 1, wherein the conductor layer is exposed to a sufficient amount of an impurity to form the impurity layer in the surface of the conductor layer, said impurity layer comprising a mixture of the conductor and the impurity.

3. The method of claim 2, wherein the conductor is a metal that has a base comprising at least one of aluminum, copper, tungsten, titanium or a mixture thereof.

4. The method of claim 3, wherein the conductor is an aluminum based metal and the impurity comprises at least one of silicon, germanium, fluorine, iodine, chlorine, titanium, tungsten, tantalum or a mixture thereof.

5. The method of claim 4, wherein the impurity is $TiCl_4$.

6. The method of claim 1, wherein the impurity layer has a melting point that is from about 10% to about 60% below the intrinsic melting point of the conductor.

7. The method of claim 1, wherein the impurity is formed intermittently.

8. The method of claim 1, wherein the impurity layer is formed during the depositing step.

9. The method of claim 1, wherein the impurity layer is formed during the heating step.

10. A semiconductor device formed by the method of claim 1.

11. A process for semiconductor metallization, comprising the steps of:

providing a semiconductor wafer having a contact formed therein;

depositing a metal layer on the semiconductor wafer surface, said metal layer comprising a metal and having an exterior surface;

exposing the exterior surface of the metal layer to a sufficient amount of an impurity to form an impurity layer in said surface, said impurity layer comprising a mixture of the metal and the impurity, and said impurity

layer having a melting point temperature and surface tension less than that of said metal; and

heating the metal layer to a reflow temperature, said reflow temperature being sufficient to cause the layers to reflow.

12. The process of claim 11, wherein the metal has a base comprising at least one of aluminum, copper, tungsten, titanium or a mixture thereof; and the impurity comprises at least one of silicon, germanium, fluorine, iodine, chlorine, titanium, tungsten, tantalum or a mixture thereof.

13. The process of claim 11, wherein the metal has an aluminum base and the depositing, heating and exposing steps occur simultaneously during a hot sputtering process.

14. The process of claim 11, wherein the metal has an aluminum base and the impurity layer has a melting point temperature that is less than about 400°C.

15. The process of claim 11, wherein the metal has an aluminum base and wherein the reflow temperature is less than about 400°C.

16. The process of claim 11, wherein the exterior surface of the metal layer is exposed to the impurity during the depositing step.

17. The process of claim 11, wherein the exterior surface of the metal layer is exposed to the impurity during the heating step.

18. A semiconductor device formed by the process of claim 11.

19. A semiconductor device, comprising:

a semiconductor substrate having a first layer;

a contact formed in the first layer of the semiconductor substrate;

a conductor layer formed to extend into said contact, wherein said conductor layer comprises a conductor; and

an impurity layer in said conductor layer, said impurity layer comprising a mixture of the conductor and an impurity, said impurity layer having a melting point temperature and surface tension less than that of said conductor.

20. The device of claim 19, wherein the impurity layer is of generally uniform thickness and exists at the exterior surface of the conductor layer.

21. The device of claim 19, wherein the impurity layer exists at the surface of the conductor layer and further extends into the contact.

22. The device of claim 19, further comprising a plurality of impurity layers separated by conductor material that is substantially free of impurities.

23. The device of claim 19, wherein the conductor is a metal that has a base comprising at least one of aluminum, copper, tungsten, titanium or a mixture thereof.

24. The device of claim 23, wherein the conductor is an aluminum based metal and the impurity comprises at least one of silicon, germanium, fluorine, iodine, chlorine, titanium, tungsten, tantalum or a mixture thereof.

25. The device claim 24, wherein the impurity is $TiCl_4$.

26. The device of claim 19, wherein the impurity layer has a melting point that is from about 10% to about 60% below the intrinsic melting point of the conductor.

27. The device of claim 19, wherein the impurity layer is from about 20% to about 80% of the overall thickness of the conductor layer.

28. The device of claim 19, wherein the device is a semiconductor memory device.

29. The device of claim 28, wherein the semiconductor memory device is a dynamic random access memory (DRAM) device.

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